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Editorial

# Gambling with Adolescent Health

This month, the *Journal of Adolescent Health* introduces research reports on the topic of gambling as a health risk for adolescents [1,2]. The *Journal* invited us to help introduce this topic to its readers by commenting on the state of gambling research. Gambling research is a relatively new area of study: this youthfulness—adolescence perhaps—helps define its current state. The fact that the *Journal* previously published just one Short Communication [3] on gambling behavior provides some evidence of the topic's short history. To offer other evidence, and in the spirit of full disclosure, we also note that the gambling study reported by Martins et al in this issue received support from a Young Investigator Incentive Grant from the *Institute for Research on Pathological Gambling and Related Disorders*, part of our Division on Addictions [3].

In this editorial, we will discuss how limited scientific experience with excessive patterns of gambling has the predictable effects of limiting the choice of research questions and confounding interpretations of evidence. We also will discuss, from the other end of the pessimism-optimism spectrum, strategies that can accelerate the growth of gambling research into a more mature field of study.

Much of the early gambling research investigated the prevalence of gambling-related problems in the general population—a reasonable scientific emphasis for a new field. However, it soon became clear that, in the general population, there were relatively few people with enough gambling-related problems to meet diagnostic criteria (e.g., the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. [DSM-IV] [4]), and the cost of accurately measuring low base-rate phenomena was diverting resources from more mature research. Despite this diversion, the epidemiologic estimates of disordered gambling became more stable. Consequently, we recently suggested that the evolution of gambling research needed to shift from broad population studies to investigating population segments at special risk for developing gambling-related problems [5]. Appropriately, the *Journal* broadens its earlier discussion of adolescent gambling with studies of two population segments with special and different risks: college athletes and 17-year-old urban females [1,2].

The report of the National Collegiate Athletic Association (NCAA) survey includes the finding that the prevalence of DSM-IV-based diagnoses of past-year problem (3.1%) and pathological (1.2%) gambling among male athletes, which the authors interpreted as "high," evidences a persistence of the problem behaviors of adolescence [1]. Any number of disordered gambling cases is too many. However, "high" is a relative term that must be used carefully; high compared with what? Scientific and semantic precision can direct new research in a productive direction; imprecision can lead research down the proverbial dead end. Consequently, we would offer a different interpretation of these findings. Our meta-analysis summarized the prevalence of past-year problem and pathological gambling among adults as 2.5% and 1.5%, or a combined 4% [6–8]. These rates are very similar to the past-year rates of 3.1% and 1.2%, a combined 4.3%, for male athletes as reported by Huang et al [1]. This observation suggests that adolescents making the transition to adulthood are more like their adult counterparts than their more youthful adolescent counterparts (e.g., 19% combined; [7]). These findings collectively provoke the research questions: When and how does this transition occur? Does the transition to lower rates implicate inflation in the rates of adolescent gambling-related problems or the research that measures these difficulties? The opportunity for different interpretations from the evidence is characteristic of a youthful field where untested assumptions can pervade interpretations.

However, there are familiar signposts that can help researchers navigate the relatively unexplored territories of gambling-related problems. Using these guides can advance the maturity of this field beyond its years. We previously proposed a *Syndrome Model*, which can facilitate understanding of apparently different addictive behavior patterns [9]; this conceptualization of addiction anticipates both unique risks for different population segments, and a communality of risk factors shared across behavioral and sub-

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stance related addictive behaviors. The common elements can converge to produce the often-observed "high" levels of comorbidity among different addictions and the phenomenon of "addiction hopping" (i.e., moving from one apparently unique addiction to another). From this vantage point, research findings derived from the better studied addictions might inform gambling research, and gambling research can contribute to promoting the general health by clarifying the shared health risks associated with gambling and other expressions of addiction.

The gambling study by Martins et al illustrates another short cut to greater scientific maturity [2]. Using a longitudinal study initiated during 1993, Martins et al included questions about gambling behavior in their 2004 annual assessment. In this case, the expansion of an ongoing study to include gambling items provides gambling research with information on how distal factors can influence a later-life decision to gamble. The increased awareness of gambling as a public health concern (e.g., [10–16]) influenced the expansion of several major national studies to include gambling as a topic, and, as a result, gambling is included in the most recent large-scale surveys. The *National Epidemiologic Survey on Alcohol and Related Conditions* includes gambling among the related conditions [17]. The most recent *College Alcohol Study* survey added gambling behavior [16], and the *National Comorbidity Survey-Replication* [18] added gambling-related questions to that study. The expedient inclusion of gambling within ongoing and planned research will accelerate the growth of knowledge in the rapidly developing field of gambling studies.

The increased research and consequent acceleration of knowledge will be necessary to keep pace with expanding health risks. Today's adolescents grew up during a period of rapid proliferation of legalized commercial and Native American gambling casinos beyond the borders of Nevada and Atlantic City. At the same time, state governments, acting in the interest of their citizens, became dependent on lottery revenues and now promote playing the lottery as a kind of civic duty. Recently, some states began escalating their use of gambling as a revenue stream by sanctioning slot machine establishments. In addition to adolescents growing up as one of the first generations in a society approving of gambling, the recent popularity of poker, fueled by exposure in the media, has added "appeal" to "approval." Some would argue that the risks are minimal because adolescents are prohibited from entering casinos, buying lottery tickets, and generally engaging in the gambling activities that are easily accessible by adults. However, today's adolescents are "connected": they have the Internet as a portal to, literally, a world of gambling opportunities. Indeed, there is concern that Internet use by adolescents for whatever purpose can become excessive and harmful. In much the same way that studying gambling shed light on understanding addictions in general, the study of Internet-based disordered gambling might shed light on the unique and shared factors contributing to abuse of the Internet by adolescents.

Improving adolescent health will require a better understanding of the health risks specific to gambling and the general health risks exposed by disordered gambling.

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## References

[1] Huang J-H, Jacobs DF, Derevensky JL, et al. Gambling and health risk behaviors among U.S. college student athletes: findings from a national study. J Adolesc Health 2007;40:390–7.

[2] Martins SS, Storr CL, Ialongo NS, Chilcoat HD. Mental health and gambling in urban female adolescents. J Adolesc Health 2007;40:463–5.

[3] Pietrzak RH, Petry NM. Gambling severity and health functioning in adolescents recruited from urban primary care settings. J Adolesc Health 2006;39:764–6.

[4] American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th ed. Washington, DC: American Psychiatric Association, 1994.

[5] Shaffer HJ, LaBrie RA, LaPlante DA, et al. The road less traveled: moving from distribution to determinants in the study of gambling epidemiology. Can J Psychiatry 2004;49:504–16.

[6] Shaffer HJ, Hall MN, Vander Bilt J. Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-Analysis. Boston, MA: Presidents and Fellows of Harvard College, 1997.

[7] Shaffer HJ, Hall MN. Updating and refining meta-analytic prevalence estimates of disordered gambling behaviour in the United States and Canada. Can J Public Health 2001;92:168–72.

[8] Shaffer HJ, Hall MN, Vander Bilt J. Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. Am J Public Health 1991;100:427–48.

[9] Shaffer HJ, LaPlante DA, LaBrie RA, et al. Toward a syndrome model of addiction: multiple expressions, common etiology. Harv Rev Psychiatry 2004;12:367–74.

[10] Korn DA. Expansion of gambling in Canada: implications for health and social policy. Can Med Assoc J 2000;163:61–4.

[11] Skinner HA. Gambling: achieving the right balance. J Gambl Stud 1999;15:285–7.

[12] Shaffer HJ, Korn DA. Gambling and related mental disorders: a public health analysis. In: Fielding JE, Brownson RC, Starfield B, eds. Annual Review of Public Health, Volume 23. Palo Alto, CA: Annual Reviews, Inc., 2002:171–212.

[13] Shaffer HJ, LaBrie RA, LaPlante DA. Laying the foundation for quantifying regional exposure to social phenomena: considering the case of legalized gambling as a public health toxin. Psychol Addict Behav 2004;18:40–8.

[14] Shaffer HJ, Kidman RC. Gambling and the public health. In: Grant JE, Potenza MN, eds. Pathological Gambling: A Clinical Guide to Treatment. Washington, DC: American Psychiatric Publishing, Inc., 2004:3–23.

[15] Blaszczynski A, Ladouceur R, Shaffer HJ. A science-based framework for responsible gambling: the Reno model. J Gambl Stud 2004;20:301–17.

[16] LaBrie RA, Shaffer HJ. Toward a science of gambling regulation: a concept statement. AGA Responsible Gaming Lect Ser 2003;2:1–7.

[17] Grant BF, Stinson FS, Hasin DS, et al. Prevalence, correlates, and comorbidity of bipolar I disorder and axis I and I I disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry 2005;66:1205–15.

[18] Kessler RC, Birnbaum H, Demler O, et al. The prevalence and correlates of nonaffective psychosis in the National Comorbidity Survey Replication (NCS-R). Biol Psychiatry 2005;58: 668–76.